

A SKETCH ON THE SEDGE AND GRASS FLORA OF JALPAIGURI DISTRICT, WEST BENGAL¹

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The paper lists 42 species belonging to 10 genera of sedges and 126 species belonging to 66 genera of grasses occurring in Jalpaiguri district. The precise localities with reference to forest ranges and forest divisions in this district together with collector's name and numbers have been given against each species.

INTRODUCTION

The district of Jalpaiguri, is situated between 26°16' & 27°0' north latitude, and between 88°15' & 89°53' east longitude. It is bounded by Assam state in the east, part of Darjeeling district and Bangladesh in the west, part of Darjeeling district and Bhutan in the north and part of Bangladesh and Coochbehar district in the south. The total area of the district is 6,234.13 sq. km. The headquarters is at Jalpaiguri on the right bank of the Tista river, situated roughly 32 km. from the nearest forest reserve. The district is mainly a plain land with the exception of Buxaduar hills and a part of Titi area. Sinchula is the highest peak of Buxaduar hills (\pm 1912 m).

The district is made up of alluvium with deposits of coarse gravel near the hills on the north, sandy clay and sand along the course of rivers. The beds of Buxa hills consist of variegated slates, quartzites and dolomites. The rainfall is heavy in this district and more on the north-eastern part (towards Buxaduar hills). The average annual rainfall of the district is 3925.1 mm (154.33"). In the Jalpaiguri town the mean maximum temperature in April is 31.7°C.

The first account of sedges and grasses of

Bengal was given by Prain (1903). Among later works, which deal with only sedges or only grasses or both sedges and grasses of the present day West Bengal, the following may be mentioned — Banerjee (1968), Chakravarty (1957), Chaudhuri (1959a, 1960a, 1965), Dutta & Maiti (1963), Guha (1971), Guha Bakshi & Sen (1977), Majumdar (1956), Matthew (1966, 1981), and Paul & Bhattacharya (1959). The works of Hara (1966, 1971) and Ohashi (1975) on eastern Himalayas also cover Darjeeling hills of this state. Recently a list of grasses of Bihar, Orissa and West Bengal was given by Jain *et al.* (1975). But the complete exploration of sedges and grasses of many districts of West Bengal has, not so far been done. The only account of sedges and grasses of Buxa forest division and Jalpaiguri forest division of this district was given by Chaudhuri (1959b, 1960b) but such records were not represented by a single specimen in the Central National Herbarium, Howrah (CAL) and other Indian herbaria. Moreover he has not mentioned any precise localities of the taxa. The other two forest divisions of Jalpaiguri district, i.e. Baikunthapur and Coochbehar still remains unpublished. Mukerjee (1965) though published a sketch on the vegetation of Jalpaiguri district, but it includes only a few taxa of sedges and grasses.

I have (Sikdar 1981) in connection with my studies on the "Vegetation and Flora of Jalpaiguri district, West Bengal" from 1974

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to 1979 made a thorough collection of sedges and grasses from twenty different forest ranges including cultivated fields, barren lands etc. distributed into four different forest divisions in the district. Besides my own collections, a few collections of sedges and grasses by others from this district available in CAL were examined and incorporated in this communication. Only a few taxa have been added here based on literature (Chaudhuri 1959b, 1960b) and (Mukerjee 1965) to prepare a complete account as far as possible. All the collections have been deposited in the Central National Herbarium, Howrah (CAL).

Altogether 42 species of sedges (Cyperaceae) belonging to 10 genera and 126 species of grasses (Poaceae) belonging to 66 genera have been enumerated in this paper. In systematic enumeration, name of each species is followed by precise locality/localities with symbol in bracket indicating the name of forest division and forest range which is again followed by collector's name and number. In case of the species which have been included on the basis of literature, author's name is used followed by page number. The genera and species are arranged in alphabetical order within the family. The nomenclature of the taxa has been given upto date as far as possible. Symbols as given in the brackets represent the respective forest ranges in each forest division and such symbols are used to indicate the localities of various species, collected during this study.

'A' = Baikunthapur Forest Division:

- (A₁) = 7th Mile range;
- (A₂) = Sarugara range;
- (A₃) = Ambari range;
- (A₄) = Belacoba range and
- (A₅) = Apalchand range.

'B' = Jalpaiguri Forest Division:

- (B₁) = Upper Tondu range;

(B₂) = Lower Tondu range;

(B₃) = Diana range and

(B₄) = Moraghat range.

'C' = Coochbehar Forest Division:

(C₁) = Madarihat range;

(C₂) = Nilpara range;

(C₃) = Jaldapara range and

(C₄) = Chilapata range.

'D' = Buxa Forest Division:

(D₁) = Nimati range;

(D₂) = Damanpur range;

(D₃) = Rajabhatkhawa range;

(D₄) = Jainti range;

(D₅) = Buxaduar range;

(D₆) = Raidak range and

(D₇) = Bholka range.

The list of various plant collectors who had collected sedges and grasses from Jalpaiguri district, as represented by only a few sheets in CAL, except my own collection with large number of gatherings and now being incorporated in this work is given below indicating the year/years of their collection in bracket after each name:

Agarwal, S. C. (1956); Biswas, K. P. (1944, 1948, 1949); Burkill, I. H. (1906-1909); Chaudhuri (1959-1960); Das, C. R. (1959); Guha, M. P. (1955-1956); Indo-Russ. Expe. to E. Him. & N. Bengal (1961); Molla, H. A. & Pal, D. C. (1978); Molla, H. A. & Roy, B. (1979); Mudram, G. H. (1956); Mukerjee, S. K. (1962); Nanda, P. C. (1956); Narayanswami, V. (1949); Ribu & Rhomoo (1911) and Sikdar, J. K. (1975-1977).

The collections of sedges and grasses by the above mentioned collectors except Chaudhuri (1959b, 1960b) and Mukerjee (1965) are still unpublished. Hence this is an attempt to prepare a complete list of sedges and grasses as far as possible occurring in Jalpaiguri district mainly based on my own collections from the district.

SYSTEMATIC ENUMERATION
CYPERACEAE

- Bulbostylis barbata** (Rottb.) Clarke
Indong (B₁), *J. K. Sikdar* 338.
- Carex indica** Linn.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 91.
- C. japonica** Thunb.
Gajalduba (A₅), *S. K. Mukerjee* 5580.
- C. stramentitia** Boott. ex Bockeler
Buxa road (D₃), *K. P. Biswas* 1645 (5 sheets); Near Buxaduars (D₅), *K. P. Biswas* 2037 (5 sheets).
- C. wallichiana** Presc. ex Hook f.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 91.
- Cyperus brevifolius** (Rottbl.) Hassk.
North Rajabhatkhawa (D₃), *J. K. Sikdar* 7013.
- C. compactus** Retz.
Chel, Kathambari (A₅), *J. K. Sikdar* 52; South Bholka (D₇), *J. K. Sikdar* 4202.
- C. compressus** Linn.
Murti riverbed (B₁), *J. K. Sikdar* 365.
- C. cuspidatus** Kunth
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 91.
- C. cyperoides** (Link.) O. Kuntze
Mendabari, Chilapata (C₄), *J. K. Sikdar* 638; Chel, Kathambari (A₅), *S. K. Mukerjee* 5573.
- C. diffusus** Vahl
Laltong (A₁), *J. K. Sikdar* 199; Santrabari (D₅), 350 m, *J. K. Sikdar* 7024; Jainti (D₄), *V. Narayanswami* 3010; Buxa road (D₃), *K. P. Biswas* 1651.
- C. digitatus** Roxb.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 91.
- C. distans** Linn. f.
Chapramari (B₁), *J. K. Sikdar* 304.
- C. exaltatus** Retz.
Baradabri (C₄), *Indo-Russian Exped. to E. Himal. & N. Bengal* 370.
- C. flavidus** Retz.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 91; Buxa forest division (D), Chaudhuri, *l.c.* 472.
- C. halpan** Linn.
Mendabari (C₄), *J. K. Sikdar* 627; Rajabhatkhawa (D₃), *K. P. Biswas* 1637.
- C. iria** Linn.
Way to Buxaduar hills (D₅), 550 m, *J. K. Sikdar* 7025; Buxa-Santrabari (D₅), 300 m, *V. Narayanswami* 2908.
- C. lucidus** R. Br.
Jalpaiguri forest division (B), Chaudhuri *l.c.* 91.
- C. nutans** Vahl
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 91; Buxa forest division (D), Chaudhuri *l.c.* 472.
- C. pilosus** Vahl
Mendabari (C₄), *J. K. Sikdar* 637.
- C. platystylis** R. Br.
Jalpaiguri plains, Terai (B), *Ribu & Rhomoo* 4969.
- C. silletensis** Nees ex Wight
Bania (C₄), *J. K. Sikdar* 574; Khairbari forest (C₁), *C. R. Das* 105.
- C. sulcinux** Clarke
Jalpaiguri forest division (B), Chaudhuri *l.c.* 91.
- C. tenuispica** Steud.
Damanpur (D₂), *J. K. Sikdar* 912.
- Fimbristylis aestivalis** (Retz.) Vahl
Phuljhora (A₅), *J. K. Sikdar* 69; Rajabhatkhawa (D₃), *V. Narayanswami* 2485; Alipurduar (D), *C. R. Das* 79.
- F. dichotoma** (Linn.) Vahl
Chapramari (B₁), *J. K. Sikdar* 267; Rajabhatkhawa (D₃), *V. Narayanswami* 2485; Buxa camp (D₃), *V. Narayanswami* 2960.

- F. falcata** (Vahl) Kunth
Jalpaiguri forest division (B), Chaudhuri,
l.c. 91.
- F. miliacea** (Linn.) Vahl
Damanpur (D₂), *J. K. Sikdar* 909.
- F. schoenoides** (Retz.) Vahl
Chilapata (C₄), *J. K. Sikdar* 576; Mendabari
(C₄), *J. K. Sikdar* 606.
- Kyllinga nemoralis** (Forster) Dandy ex Hutch.
Mendabari (C₄), *J. K. Sikdar* 623.
- K. tenuifolia** Steud.
Jalpaiguri forest division (B), Chaudhuri,
l.c. 91; Buxa forest division (D), Chaudhuri,
l.c. 422.
- Mariscus cyperinus** (Retz.) Vahl
Chapramari (B₁), *J. K. Sikdar* 242.
- Pycreus globosus** (Allioni) Reichb.
Jalpaiguri forest division (D), Chaudhuri,
l.c. 91.
- P. pumilus** (Linn.) Nees
Jalpaiguri forest division (B), Chaudhuri,
l.c. 91.
- P. stramineus** C. B. Clarke
Near Buxaduars (D₅), *K. P. Biswas* 2037.
- Rikliella squarrosa** (Linn.) J. Roynal
Jalpaiguri forest division (B), Chaudhuri,
l.c. 91.
- Scirpus articulatus** Linn.
Chel, Kathambari (A₅), *J. K. Sikdar* 7167.
- S. comosus** Wall. ex Roxb.
Jalpaiguri forest division (B), Chaudhuri,
l.c. 91.
- S. juncooides** Roxb.
Chilapata (C₄), *J. K. Sikdar* 578.
- S. mucronatus** Linn.
Apalchand, Tista bank (A₅), *J. K. Sikdar*
173.
- Scleria terrestris** (Linn.) Fass.
Mech basti, Apalchand (A₅), *Molla & Pal*
20375.
- S. tessellata** Willd.
Jalpaiguri forest division (B), Chaudhuri,
l.c. 91.

POACEAE (= GRAMINEAE)

- Acroceras zizanioides** (H. B. K.) Dandy
Garam (D₂), *J. K. Sikdar* 899.
- Alloteropsis cimicina** (Linn.) Stapf
Jalpaiguri forest division (B), Chaudhuri,
l.c. 90.
- Apluda mutica** Linn.
Jaldapara game sanctuary (C₃), *J. K. Sikdar*
719.
- Apocopsis paleacea** (Trin.) Hochr.
Jalpaiguri forest division (B), Chaudhuri,
l.c. 90.
- Arundinella bengalensis** (Spreng.) Druce
Jaldapara game sanctuary (C₃), *J. K. Sikdar*
716; Jalpaiguri (B), *I. H. Burkill* 29011 &
27391.
- A. decempedalis** (O. Kuntze) Janowski
Jalpaiguri forest division (B), Chaudhuri,
l.c. 89; Jalpaiguri district, Mukerjee, *l.c.* 134.
- Arundo donax** Linn.
Jalpaiguri forest division (B), Chaudhuri,
l.c. 89.
- Axonopus compressus** (Sw.) P. Beauv.
Buxa-santrabari (D₅), 200 m, *V. Narayan-*
swami 2940.
- Bambusa arundinacea** (Retz.) Willd.
Titi-3 (C₁), 225 m, *J. K. Sikdar* 4560.
- B. balcooa** Roxb.
Jalpaiguri district, Mukerjee, *l.c.* 136.
- B. pallida** Munro.
Jalpaiguri district, Mukerjee, *l.c.* 136.
- B. tulda** Roxb.
Jalpaiguri district, Mukerjee, *l.c.* 136.
- B. vulgaris** Schrad.
Jalpaiguri district, Mukerjee, *l.c.* 136.
- Brachiaria distachya** (Linn.) Stapf
Buxa-Santrabari (D₅), 200 m, *V. Narayan-*
swami 2937.
- B. milliformis** (Presl) A. Chase
Gorumara II (B₂), *P. C. Nanda* 264.
- B. ramosa** (Linn.) Stapf
Rajabhatkhawa (D₃), *J. K. Sikdar* 7187.

- B. reptans** (Linn.) Gard. et Hubbard
Bania (C₄), *J. K. Sikdar* 555; Bhutanghat (D₆), *V. Narayanswami* 3094.
- B. setigera** (Retz.) C. E. Hubb.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.
- Capillipedium assimile** (Steud.) A. Camus
Bhutanghat (D₆), *V. Narayanswami* 3068.
- Centotheca lappacea** (Linn.) Desv.
Poro (D₁), *J. K. Sikdar* 789 & 803; South Bholka (D₇), *J. K. Sikdar* 4180.
- Cephalostachyum capitatum** Munro.
Jalpaiguri district, Mukerjee, *l.c.* 136.
- Chloris dolichostachya** Lagasca
Bhutanghat (D₆), *V. Narayanswami* 3018.
- Chrysopogon aciculatus** (Retz.) Trin.
Chapramari (B₁), *J. K. Sikdar* 245; Rajabhatkhawa (D₃), *J. K. Sikdar* 7020.
- Coelorhachis khasiana** (Hack.) Stapf ex Bor.
Bichabhanga II, Lataguri (B₂), *M. P. Guha* 260.
- C. striata** (Nees ex Steud.) A. Camus
Buxa forest division (D), Chaudhuri, *l.c.* 472.
- Coix lacryma-jobi** Linn.
Jaldapara game sanctuary (C₃), *J. K. Sikdar* 725.
- Cymbopogon flexuosus** (Nees ex Steud.) Wats.
Lataguri (B₂), *M. P. Guha* 255.
- C. jwarancusa** (Jones) Schult.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 88.
- C. nardus** Linn.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 88.
- C. schoenanthus** (Linn.) Spreng.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 90.
- Cynodon dactylon** (Linn.) Pers.
Apalchand (A₅), *J. K. Sikdar* 7164; Buxaduar (D₅), 750 m *J. K. Sikdar* 7175.
- Cyrtococcum accrescens** (Trin.) Stapf
Bhutanghat (D₆), *V. Narayanswami* 3104.
- C. oxyphyllum** (Steud.) Stapf
Road to Murichom, 37th mile (D₅), 1400 m, *V. Narayanswami* 2825.
- C. patens** (Linn.) A. Camus
Rajabhatkhawa (D₃), *J. K. Sikdar* 7138; Buxa-Santrabari (D₅), 350 m, *V. Narayanswami* 2910.
- Dactyloctenium aegypticum** (Linn.) P. Beauv.
Chel, Kathambari (A₅), *J. K. Sikdar* 7177.
- Dendrocalamus hamiltonii** Nees et Arn.
Jalpaiguri district, Mukerjee, *l.c.* 136.
- Desmostachya bipinnata** (Linn.) Stapf
Central Moraghat (B₄), *J. K. Sikdar* 7189.
- Dichanthium annulatum** (Forssk.) Stapf
Buxa prison (D₅), 800 m, *V. Narayanswami* 2980.
- Digitaria longifolia** (Retz.) Pers.
North Rajabhatkhawa (D₃), *J. K. Sikdar* 7073.
- D. preslii** (Kunth) Henr.
Ambari (A₃), *J. K. Sikdar* 7022.
- D. sanguinalis** (Linn.) Scop.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.
- D. setigera** Roth apud Roem. et Schult.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 86.
- Echinochloa colonum** (Linn.) Link.
Balapara (D₇), *J. K. Sikdar* 4181; Bhutanghat (D₆), *V. Narayanswami* 3111.
- E. crusgalli** (Linn.) P. Beauv.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.
- E. stagenina** (Retz.) P. Beauv.
Simulbari, Jalpaiguri, 300 m, *K. P. Biswas*, s.n.
- Eleusine coracana** (Linn.) Gaertn.
Garam (D₂), *J. K. Sikdar* 878 & 879.
- E. indica** (Linn.) Gaertn.
Chapramari (B₁), *J. K. Sikdar* 246; Buxa,

- Santrabari (D₅), 200 m, *V. Narayanswami* 2916; Bhutanghat (D₆), *V. Narayanswami* 3105 & 3019.
- Elytrophorus spicatus** (Willd.) A. Camus
Central Moroghat (B), *J. K. Sikdar* 7155.
- Eragrostis cilianensis** (All.) Vignolo-lutali
Chel, Kathambari (A₅), *J. K. Sikdar* 56.
- E. coarctata** Stapf
Rajabhatkhawa (D₃), *J. K. Sikdar* 7048.
- E. diarrhena** (Schult.) Steud.
North Rajabhatkhawa (D₃), *J. K. Sikdar* 7071.
- E. gangetica** (Roxb.) Steud.
Patgram, Jalpaiguri, *I. H. Burkill* 30706.
- E. japonica** (Thunb.) Trin.
Moynabari (D₆), 200 m, *J. K. Sikdar* 4143; Balapara (D₇), *J. K. Sikdar* 4222.
- E. nigra** Nees ex Steud.
Buxa-Bhutan Road, 36th mile (D₅), 1200 m, *V. Narayanswami* 2562.
- E. pilosa** (Linn.) P. Beauv.
North Rajabhatkhawa (D₃), *J. K. Sikdar* 7072.
- E. tenella** (Linn.) P. Beauv. ex Roem. et Schult.
Rajabhatkhawa (D₃), *J. K. Sikdar* 7070.
- E. uniloides** (Retz.) Nees ex Steud.
Apalchand (A₅), *J. K. Sikdar* 164; Chilapata (C₄), *J. K. Sikdar* 575; Poro (D₁), *J. K. Sikdar* 768; Garam (D₂), *J. K. Sikdar* 858; South Bholka (D₇), *J. K. Sikdar* 4233.
- Erianthus longisetosus** Anderss.
Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.
- Eriochloa procera** (Retz.) C. E. Hubb.
Bhutanghat (D₆), *V. Narayanswami* 3087.
- Eulalia trispicata** (Schult.) Henr.
Rajabhatkhawa (D₃), *K. P. Biswas* 1560.
- Hemarthria compressa** (Linn. f.) R. Br.
North Rajabhatkhawa (D₃), *J. K. Sikdar* 7000.
- Hygroryza aristata** (Retz.) Nees ex Wight
Khutimari (B₄), *J. K. Sikdar* 7191.
- Imperata cylindrica** (Linn.) P. Beauv.
Chapramari (B₁), *J. K. Sikdar* 243; Rajabhatkhawa (D₃), *C. R. Das* 4.
- Isachne globosa** (Thunb.) O. Ktze.
Gorumara game sanctuary (D₂), *J. K. Sikdar* 7211.
- I. miliacea** Roth
Jalpaiguri forest division (B), *J. K. Sikdar* 89.
- Ischaemum rugosum** Salisb.
Chel, Kathambari (A₅), *J. K. Sikdar* 7167.
- Leersia hexandra** Sw.
Jalpaiguri forest division (B), Chaudhuri *l.c.* 89.
- Microstegium ciliatum** (Trin.) A. Camus
Poro (D₁), *J. K. Sikdar* 795; Bhutanghat (D₆), *J. K. Sikdar* 4115; Balapara (D₇), *J. K. Sikdar* 4171; Gorumara game sanctuary (D₂), *S. C. Agrawal* 270.
- M. vagans** (Nees ex Steud.)
Garam (D₂), *J. K. Sikdar* 863.
- Narenga fallax** (Balansa) Bor
Bhutanghat (D₆), *V. Narayanswami* 3112.
- N. porphyrocoma** (Hance) Bor
Rajabhatkhawa (D₃), *J. K. Sikdar* 7069; Laltong (A₂), *K. P. Biswas* 6489.
- Neyraudia arundinacea** (Linn.) Hern.
Jaldapara game sanctuary (C₃), *J. K. Sikdar* 737; Buxa road (D₃), *K. P. Biswas* 1679.
- N. reynaudiana** (Kunth) Keng
Bhutanghat (D₆), 300 m, *J. K. Sikdar* 4120.
- Oplismenus burmannii** (Retz.) P. Beauv.
Bhutanghat (D₆), 300 m, *J. K. Sikdar* 4116.
- O. compositus** (Linn.) P. Beauv.
Poro (D₁), *J. K. Sikdar* 794; Garam (D₂), *J. K. Sikdar* 859; Way to Buxaduars (D₅), 800 m, *K. P. Biswas* 1796; Bhutanghat (D₆), *V. Narayanswami* 3095.
- Oryza minuta** J. S. Presl ex C. B. Presl
Mechbasti, Apalchand (A₅), *Molla & Pal* 20380.

O. sativa Linn.

Kathambari (A₅), *J. K. Sikdar* 4586.

Ottochloa nodosa (Kunth) Dandy

Bhutanghat (D₆), *V. Narayanswami* 3108.

Panicum auritum Presl ex Nees

Jaldapara east (C₄), *Molla & Roy* 20853.

P. humidorum Buch.-Ham. ex Hook. f.

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.

P. notatum Retz.

Poro (D₁), *J. K. Sikdar* 798; Rajabhatkhawa (D₃), *K. P. Biswas* 1562; Barodabri (C₄), *Indo-Russian Exped. to E. Himal. & N. Bengal* 360.

P. paludosum Roxb.

North Rajabhatkhawa (D₃), *J. K. Sikdar* 7074.

P. psilopodium Trin.

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.

P. repens Linn.

Bhutanghat (D₆), *V. Narayanswami* 3087.

P. sarmentosum Roxb.

Churabhija, Apalchand (A₅), *J. K. Sikdar* 113.

P. trypheron Schult.

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.

Paspalidium flavidum (Retz.) A. Camus

Buxa-Santrabari (D₅), 200 m, *V. Narayanswami* 2941; Buxa camp (D₅), 800 m, *V. Narayanswami* 2941.

P. punctatum (Burm.) A. Camus

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.

Paspalum conjugatum Berg.

South Diana (B₃), *J. K. Sikdar* 374; Buxa-Bhutan Road, 36th mile (D₅), 1200 m, *V. Narayanswami* 2564; Rajabhatkhawa Depot Road (D₃), *V. Narayanswami* 2416 & 2417.

P. orbiculare Forst.

Chapramari (B₁), *J. K. Sikdar* 241; Jaldapara game sanctuary (C₃), *J. K. Sikdar* 717.

P. scrobiculatum Linn.

Buxa-Bhutan Road, 36th mile (D₅), 1200 m, *V. Narayanswami* 2554; Bhutanghat (D₆), *V. Narayanswami* 3075; Buxa camp (D₅), 800 m, *V. Narayanswami* 2955.

Perotis indica (Linn.) O. Ktze.

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 90.

Phragmites karka (Retz.) Trin. ex Steud.

South Bholka (D₇), *J. K. Sikdar* 4224; Apalchand (A₅), *J. K. Sikdar* 168.

Poa annua Linn.

Sinchu, near Bhutan border (D₅), 1800 m, *J. K. Sikdar* 6918.

Pogonatherum crinitum (Thunb.) Kunth

Gosaihat (B₄), *J. K. Sikdar* 455; Rajabhatkhawa (D₅), *C. R. Das* 103.

P. paniceum (Lamk.) Hack.

Saraswatipur (A₂), *J. K. Sikdar* 211; Titi (C₁), 200 m, *J. K. Sikdar* 4535.

Polytoca digitata (Linn. f.) Druce

Bhutanghat (D₆), *V. Narayanswami* 3109.

Pseudechinolaena polystachya (H. B. K.) Stapf

Tista valley, Jalpaiguri, *I. H. Burkill* 34072.

Pseudostachyum polymorphum Munro.

Jalpaiguri district, Mukerjee, *l.c.* 136.

Rottboellia exaltata Linn. f.

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.

Saccharum arundinaceum Retz.

Rajabhatkhawa (D₃), *J. K. Sikdar* 7068.

S. bengalense Retz.

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.

S. officinarum Linn.

Apalchand (A₅), *J. K. Sikdar* 7166.

S. procerum Roxb.

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 88; Jalpaiguri district, Mukerjee, *l.c.* 134.

S. ravennae (Linn.) Murray

Jalpaiguri forest division (B), Chaudhuri,

l.c. 88; Jalpaiguri district, Mukerjee, *l.c.* 134.

S. spontaneum Linn.

Jaldapara game sanctuary (C₃), *J. K. Sikdar* 736.

Sacciolepis indica (Linn.) A. Chase

Rajabhatkhawa (D₃), *V. Narayanswami* 2365; Tista sand banks, Jalpaiguri, *G. H. Mudram* 250.

S. interrupta (Willd.) Stapf

Apalchand (A₅), *S. K. Mukerjee* 5618; Dukshin Kar Dighi, Lataguri (B₂), *S. C. Agrawal* 257.

S. myosuroides (R. Br.) A. Camus

Chapramari (B₁), *J. K. Sikdar* 281.

Schizachyrium brevifolium (Sw.) Nees ex Buse

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 89.

Sclerostachya fusca (Roxb.) A. Camus

Gorumara game sanctuary (B₂), *V. Narayanswami* 3132.

Setaria glauca (Linn.) P. Beauv.

Chapramari (B₁), *J. K. Sikdar* 240; Jaldapara game sanctuary (C₁), *J. K. Sikdar* 738; Buxa-Santrabari (D₅), 250 m, *V. Narayanswami* 2936.

S. italica (Linn.) P. Beauv.

Simulguri (A₃), *J. K. Sikdar* 510.

S. pallide-fusca (Schum.) Stapf et Hubb.

Madarihat (C₁), *J. K. Sikdar* 698.

S. palmifolia (Koen.) Stapf

Bania (C₄), *J. K. Sikdar* 4336.

S. plicata (Lamk.) T. Cooke

Laltong (A₁), *K. P. Biswas* 6528.

Sorghum halepense (Linn.) Pers.

Poro (D₁), *J. K. Sikdar* 776.

Sporobolus diander (Retz.) P. Beauv.

Chapramari (B₁), *J. K. Sikdar* 244; South Rajabhatkhawa (D₃), *J. K. Sikdar* 4271; Buxa-Santrabari (D₅), 200 m, *V. Narayanswami* 2917.

S. fertilis (Steud.) W. D. Calayton

Rajabhatkhawa (D₃), *J. K. Sikdar* 7047; 21

miles from Rajabhatkhawa (D₃), *V. Narayanswami* 2349.

Themeda arundinacea (Roxb.) Ridley

Buxa road (D₃), *K. P. Biswas* 1620.

T. caudata (Nees) A. Camus

Hanskhali, Apalchand (A₅), *J. K. Sikdar* 102; Laltong (A₁), *J. K. Sikdar* 200; South Bholka (D₇), *J. K. Sikdar* 4198.

T. villosa (Poir.) A. Camus

Jalpaiguri forest division (B), Chaudhuri, *l.c.* 88.

Thysanolaena maxima (Roxb.) O. Kuntze

Buxaduar (D₅), 800 m, *J. K. Sikdar* 4657; Way to Sinchu (D₅), 1600 m, *J. K. Sikdar* 6917; Buxa-Bhutan road, 36th mile (D₅), *V. Narayanswami* 2519.

Vetiveria zizanioides (Linn.) Nash

Garam (D₂), *J. K. Sikdar* 903; Balapara (D₇), *J. K. Sikdar* 4151.

Triticum aestivum Linn.

Chel (A₅), *J. K. Sikdar* 80; Chengmari (A₅), *J. K. Sikdar* 117.

Zea mays Linn.

Chengmari (A₅), *J. K. Sikdar* 129; Rajabhatkhawa (D₃), *J. K. Sikdar* 4602; Rajabhatkhawa Depot road (D₃), *V. Narayanswami* 2457.

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